

# Work Order ID 71567

Wednesday, July 06, 2011 1:19:27 PM



Page 1

Item ID: D3560-042

Accept



Setup Start



Revision ID:

Stop



Item Name: Arm Weldment

Start Date: 7/6/2011 Start Qty: 4.00



Cust Item ID:

Required Date: 7/22/2011 Req'd Qty: 4.00



Customer:

Reference:

Run Start



Approvals:

Process Plan: CL--

Date: 11/07/06

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3560	Rev D								

100

0.00



BAND SAW

Bandsaw

Memo

0.00

Jcaspa Bandsaw

Cut blanks 16.750" long

*amb 11/07/08*

*4*

110

0.00



HAAS CNC VERTICAL MACHINING #1

HAAS I

Memo

0.00

HAAS CNC vertical machine #1

1- Mill as per Folio FA694 Rev: AA & Dwg D3560 Rev: D  
2-C'sink 0.196" hole on manual mill as per dwg D3560  
3-Deburr per dwg D3560

*SL 11-07-27*

*(4)*

120

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

*SL 11-07-27*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 71567**

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Page 2

Item ID: D3560-042

Accept



Setup Start



Revision ID:

Stop



Item Name: Arm Weldment

Start Date: 7/6/2011 Start Qty: 4.00



Cust Item ID:

Required Date: 7/22/2011 Req'd Qty: 4.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130  QC Quality Control	QC8- Inspect parts - second check  Memo	0.00  0.00		Re 11. 7. 27		4			
140  Large Fab Large Fab	Large Fab  Memo 1-Weld assembly as per dwg D3560 STEP: 1- clean material (buff bracket and bottom of arm with blue pad ) 2- set up bracket and arm on jig 3- preheat bracket and arm with torch 4- clean before welding with brush 5- set up machine to 135 amps 6- weld across bottom and top ends 7- reheat with torch ( 65 deg C ) 8- on one side weld from bottom to top half way 9- same for other side (half way) 10- from half way point weld the rest of the first side (ease off pedal near end) 11- same for remaining side (ease off pedal near end)	0.00  0.00		11.08.03		4	0		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 71567

Wednesday, July 06, 2011 1:19:27 PM



Page 4

Item ID: D3560-042

Accept



Setup Start



Revision ID:

Stop



Item Name: Arm Weldment

Start Date: 7/6/2011 Start Qty: 4.00



Cust Item ID:

Required Date: 7/22/2011 Req'd Qty: 4.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

180

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

4 d 20 4/08/08

190

Small Fab

0.00



Small Fab

Memo

0.00

Small Fab

1-Press bushing in D3560 arm per dwg D3562

EP 11/08/10 (4)

200

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8/10/10

(4)

0.00

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Work Order ID 71567

Wednesday, July 06, 2011 1:19:27 PM



Page 5

Item ID:	D3560-042	Accept		Setup	Start	
Revision ID:					Stop	
Item Name:	Arm Weldment					
Start Date:	7/6/2011	Start Qty: 4.00		Cust Item ID:		
Required Date:	7/22/2011	Req'd Qty: 4.00		Customer:		
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210 	Identify as per dwg & Stock Location: <i>W14</i>	0.00							
Packaging	Memo	0.00							
Packaging	*** STOCK IN STEP CELL***								
									<i>HAE 11.08.10.</i>
220 	QC21- Final Inspection - Work Order Release	0.00							
QC	Memo	0.00							
Quality Control									<i>CK 11/08/11</i>

*11-08-11  
(4)*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Wednesday, July 06, 2011 1:19:24 PM

Page 1

Work Order ID: 71567

Parent Item: D3560-042

Parent Item Name: Arm Weldment



Start Date: 7/6/2011

Required Date: 7/22/2011

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 07.05.24 EC  
 IPP rev B ECN 987 07.10.09 EC verified by: DD  
 IPP Rev:C ECN1048 07-12-18 DD verified by: EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2808 		Manufactured	No			100	Each	25.0000	1	4			
Bushing													

Location	Loc Qty	Loc Code
GA	2	
32896	2	
ST023	23	
69609	3	
69892	20	

M6061T6B0.500X05.00 0		Purchased	No			140	f	46.9350	1.395	5.873684			
6061-T6 Bar .500 x 5.00													

Location	Loc Qty	Loc Code
MAT004	46.935	
112154	6.935	
117933	40	

D3592-1 		Manufactured	No			190	Each	49.0000	1	4			
Plate													

Location	Loc Qty	Loc Code
WA002	49	
47015	2	
48517	47	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

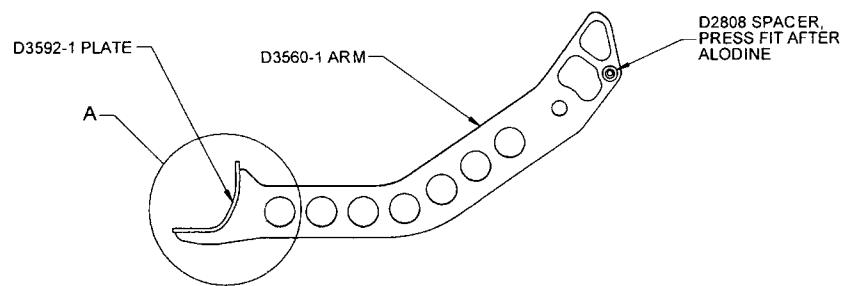
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

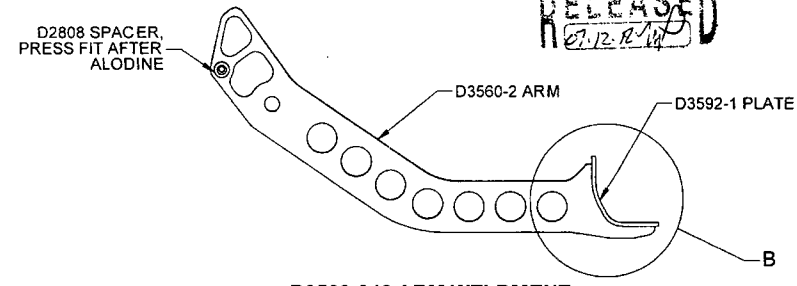
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

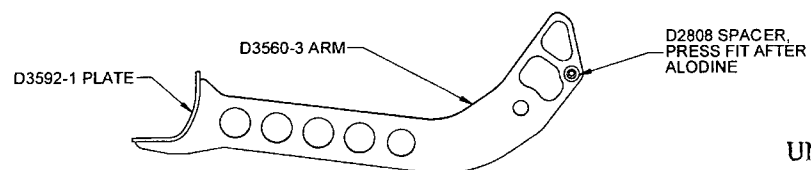
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07.12.16



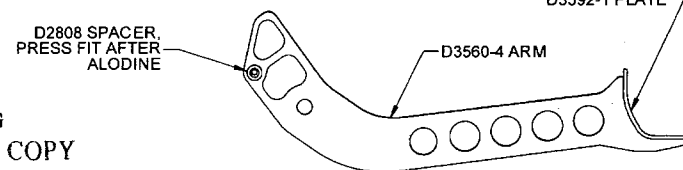
**D3560-041 ARM WELDMENT**



**D3560-042 ARM WELDMENT**

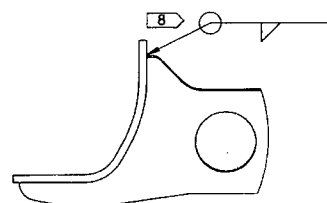


**D3560-043 ARM WELDMENT**



**D3560-044 ARM WELDMENT**

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 71567  
CL110706



**DETAIL A  
SCALE 1:2**

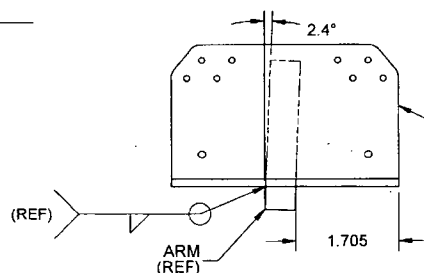
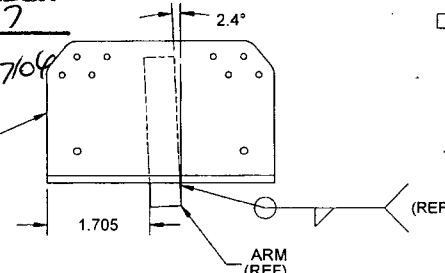


PLATE  
(REF)



ARM  
(REF)

**DETAIL B  
SCALE 1:2**

**PARTS LIST**

QTY -041	QTY -042	QTY -043	QTY -044	P/N	DESCRIPTION
X				D3560-041	ARM WELDMENT
	X			D3560-042	ARM WELDMENT
		X		D3560-043	ARM WELDMENT
			X	D3560-044	ARM WELDMENT
1	1	1	1	D2808	SPACER
1				D3560-1	ARM
	1			D3560-2	ARM
		1		D3560-3	ARM
			1	D3560-4	ARM
1	1	1	1	D3592-1	PLATE

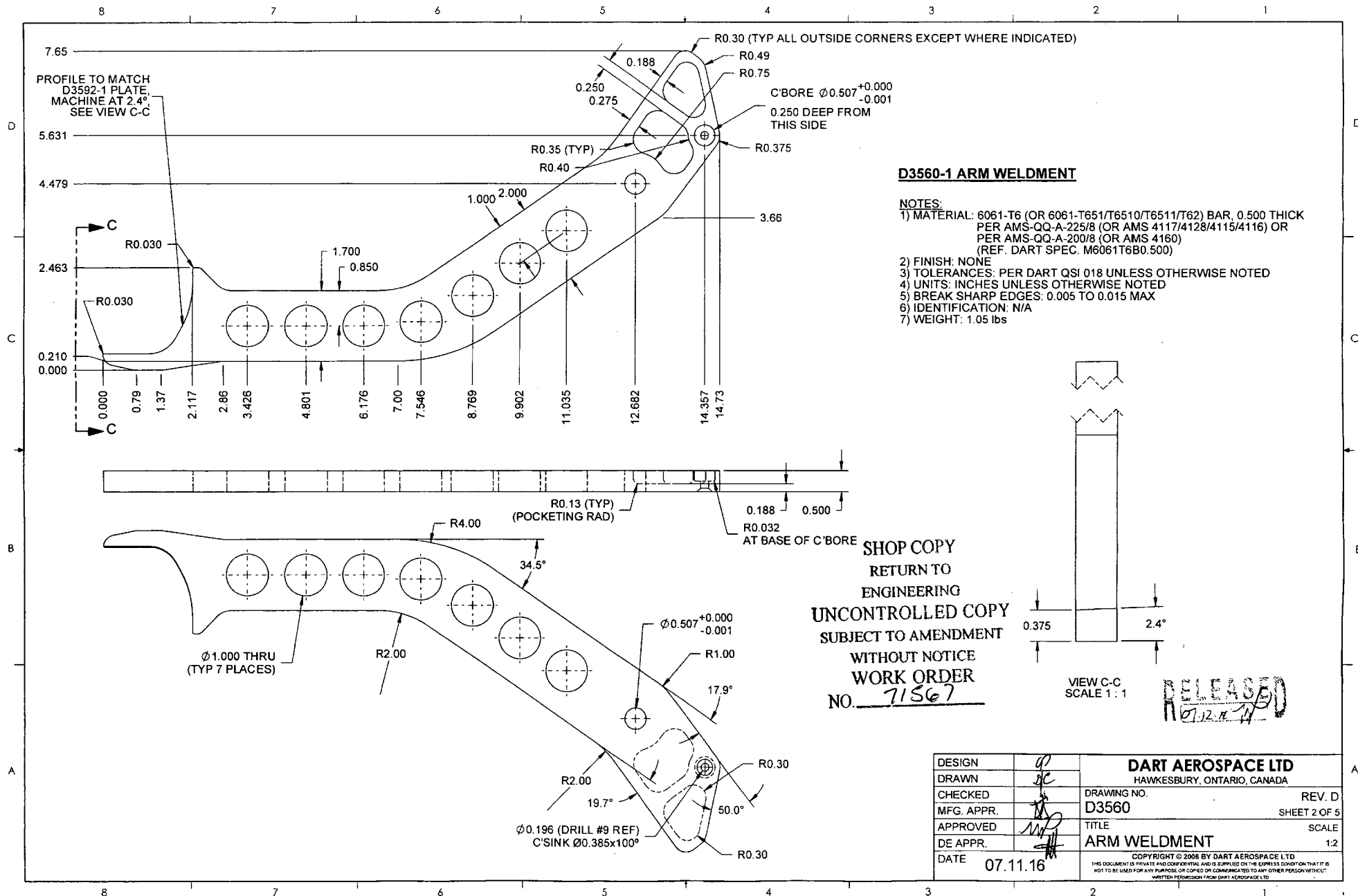
D	ADD D2808 PRESS FIT NOTE, REDRAWN IN SOLIDWORKS	DC	07.11.16
C	REMOVE POWDER COAT	CP	07.06.19
B	REDESIGN AS WELDMENT, ADD POCKETS	CP	07.01.15
A	NEW ISSUE	CP	06.09.25
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	07.11.16		

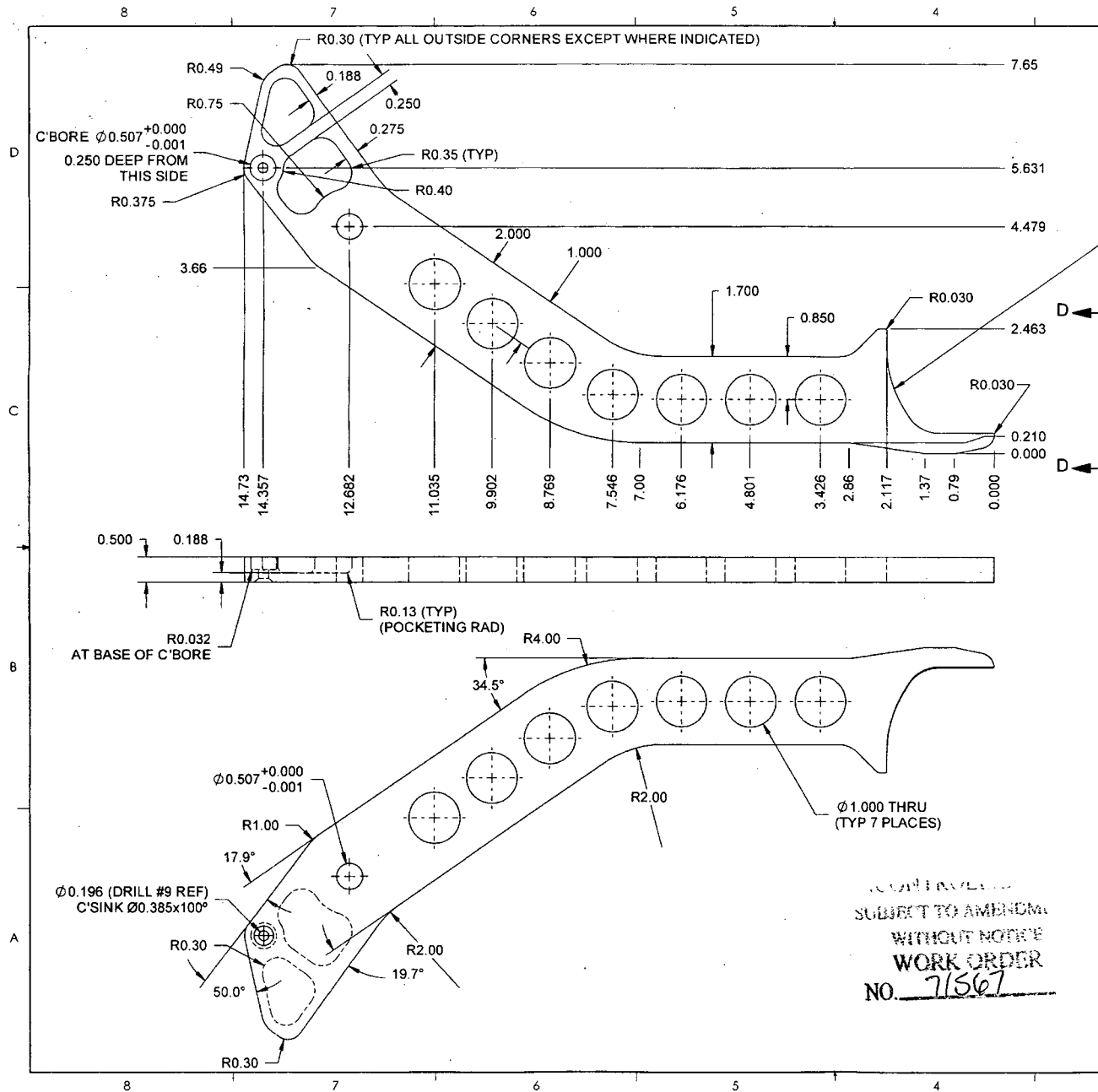
**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA

DRAWING NO.  
**D3560**  
REV. D  
SHEET 1 OF 5  
SCALE  
1:4  
TITLE  
**ARM WELDMENT**

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WRITTEN PERMISSION FROM DART AEROSPACE LTD

- NOTES:**  
1) MATERIAL: N/A  
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED  
4) UNITS: INCHES UNLESS OTHERWISE NOTED  
5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX  
6) IDENTIFICATION: N/A  
7) WEIGHT: 1.23 lbs (TYP)  
8) WELDING: PER DART QSI 004

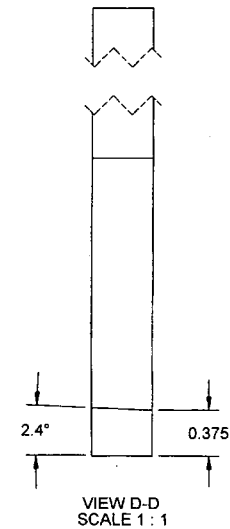




PROFILE TO MATCH  
D3592-1 PLATE,  
MACHINE AT 2.4°,  
SEE VIEW D-D

### D3560-2 ARM

- NOTES:
- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) BAR, 0.500 THICK  
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR  
PER AMS-QQ-A-200/8 (OR AMS 4160)  
(REF. DART SPEC. M6061T6B0.500)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 1.05 lbs



CONTROLLED  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 71567

DESIGN	QC	<b>DART AEROSPACE LTD</b>	
DRAWN	QC	HAWKESBURY, ONTARIO, CANADA	
CHECKED	QC	DRAWING NO.	REV. D
MFG. APPR.	QC	D3560	SHEET 3 OF 5
APPROVED	AM	TITLE	SCALE
DE APPR.	QC	ARM WELDMENT	1:2
DATE	07.11.16	COPYRIGHT © 2008 BY DART AEROSPACE LTD	
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8

7

6

5

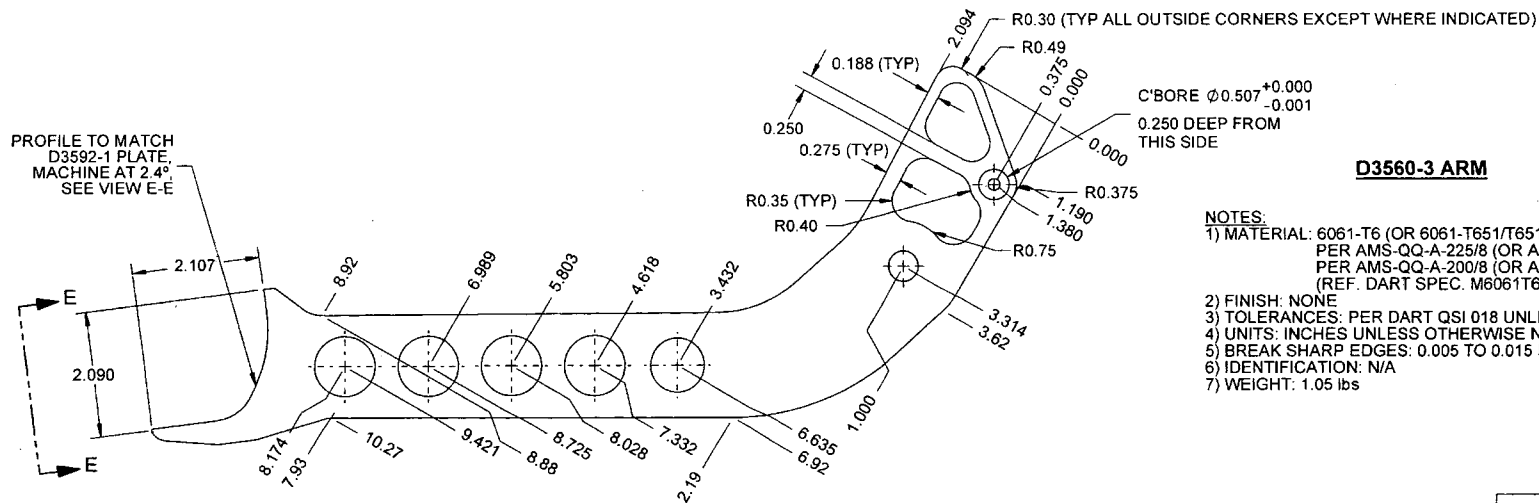
4

3

2

1

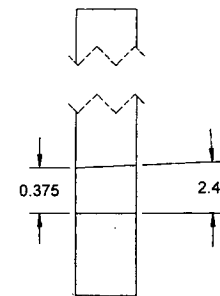
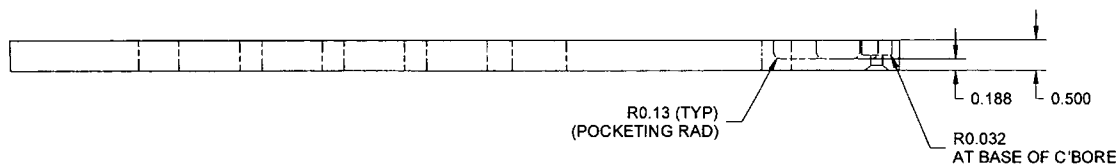
PROFILE TO MATCH  
D3592-1 PLATE,  
MACHINE AT 2.4°  
SEE VIEW E-E



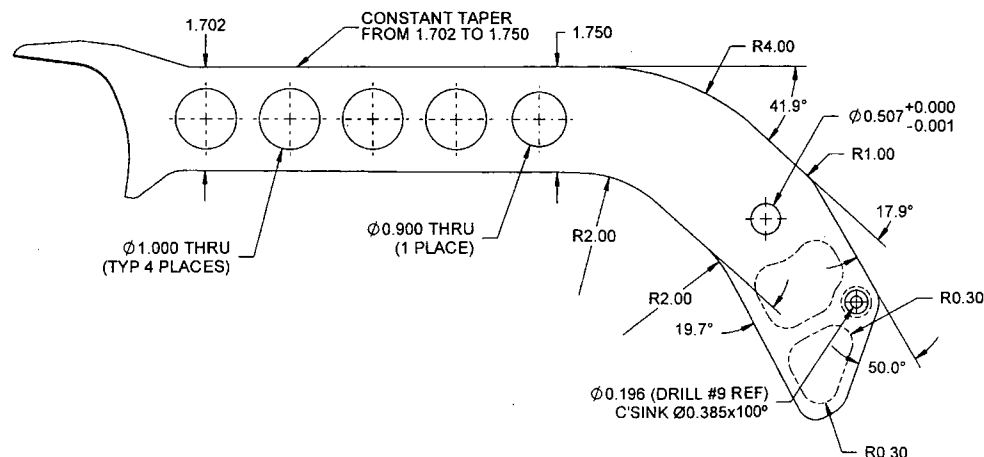
### D3560-3 ARM

#### NOTES:

- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) BAR, 0.500 THICK  
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR  
PER AMS-QQ-A-200/8 (OR AMS 4160)  
(REF. DART SPEC. M6061T6B0.500)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.05 lbs



VIEW E-E  
SCALE 1:1

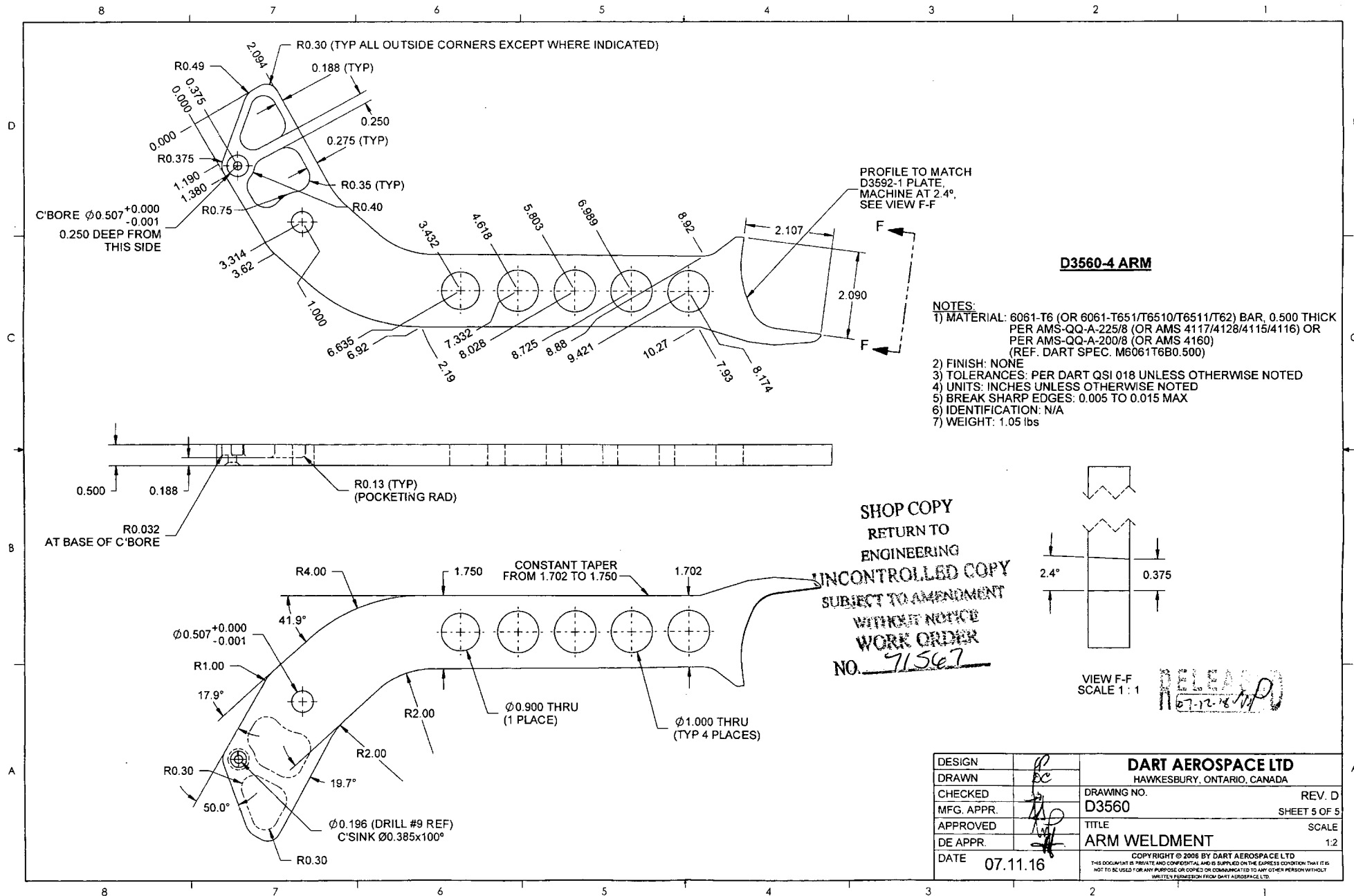


RECEIVED  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 71567

RELEASED  
07.12.11

DESIGN	AP	DART AEROSPACE LTD	
DRAWN	AC	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AS	DRAWING NO.	REV. D
MFG. APPR.	MP	D3560	SHEET 4 OF 5
APPROVED	MP	TITLE	SCALE
DE APPR.	MP	ARM WELDMENT	1:2
DATE	07.11.16	COPYRIGHT © 2006 BY DART AEROSPACE LTD	
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DESIGN	PC	<b>DART AEROSPACE LTD</b>	
DRAWN	PC	HAWKESBURY, ONTARIO, CANADA	
CHECKED	PC	DRAWING NO. <b>D3560</b>	REV. D
MFG. APPR.	PC	SHEET 5 OF 5	
APPROVED	PC	TITLE	SCALE
DE APPR.	PC	<b>ARM WELDMENT</b>	
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<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	71567
<b>Description: Arm</b>		<b>Part Number:</b>	D3560-2
<b>Inspection Dwg: D3560 Rev: D</b>		<b>Page 1 of 1</b>	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.507	+0.000/-0.001	.5065	✓		IST 9526 E	
Ø0.196	+0.005/-0.001	.197	✓		Nern-JL-3	
Ø1.000	+0.010/-0.001	1.003	✓			
0.500	+/-0.010	.485	✓	✓		stock mat'l
0.250	+/-0.010	.250	✓			
0.275	+/-0.010	.275	✓			
0.188	+/-0.010	.189	✓		mic-JL-4	
2.000	+/-0.010	2.000	✓			
1.700	+/-0.010	1.700	✓			
Ø0.385 x 100°	+/-0.010 x 0.5°	.380x100°	✓			
0.250 Deep	+/-0.010	.250	✓			

<b>Measured by:</b>	JL	<b>Audited by:</b>	RQ	<b>Prototype Approval:</b>	N/A
<b>Date:</b>	11-07-27	<b>Date:</b>	11-7-27	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A	07.01.17	New Issue P/O D3560-042	KJ/JLM	
B	07.06.13	Dimensions updated per Dwg Rev B	KJ/JLM	
C	09.06.11	Dwg Rev updated	KJ	

